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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,520	12/13/2005	James Robert Hewitt	CAF-34602/03	5663
25006 7590 02/26/2008 GIFTORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C PO BOX 7021 TROY, MI 48007-7021				
EXAMINER STOUT, MICHAEL C				
ART UNIT 3736		PAPER NUMBER		
MAIL DATE 02/26/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,520

Applicant(s)

HEWIT ET AL.

Examiner

MICHAEL C. STOUT

Art Unit

4123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-24, drawn to a sensor assembly.

Group II, claim(s) 25-29, drawn to palpation assembly.

Group III, claim(s) 31, drawn to a tactile probe assembly.

Group IV, claim(s) 33-38, drawn to a method for detecting tactile properties of an object.

Group V, claim(s) 39, drawn to a method of palpating an object.

2. The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

- a. Claim 1 is drawn to a sensor assembly comprising the limitations of a force transmission member, capacitive sensor, wherein the transmission member includes a plurality of deformable projections operative to engage and transmit an applied force to the capacitive sensor, and the sensor operative to measure a capacitance value formed when deformable projections are deformed by engagement with the capacitive sensor when a force is applied and an output signal of the force. All of which are known in the art at the time of the invention.

Hechtenberg et al. (US 5609607) discloses a sensor assembly comprising a transmission member (11, 13) and a piezoelectric sensor and the force transmission member has a plurality of projections for detecting the applied force

to the sensor and the sensor detects the applied force and outputs an indicative signal. Hechtenberg does not disclose the device having capacitive sensors. Eltaib et al. (US 20020112547 A1) discloses a tactile sensor assembly comprising a deformable member (24) which transmits pressure to the capacitive pressure sensor (12).

b. Claim 25 is drawn to a tactile sensor assembly comprising the limitations of a force transmission member and a sensor comprising a capacitive sensor, wherein the force transmission member includes a plurality of deformable projections for transmitting an applied force to the capacitive sensor, the capacitive sensor being operative to measure a capacitance value formed when the deformable projections are deformed by engagement with the capacitive sensor when a force is applied to the transmission member, and to output a signal indicative thereof (see Section "a" above); and at least one palpation member for palpating the object (jaws 1 and 2, see Column 2, Lines 46-64). All of which are known in the art at the time of the invention.

c. Claim 31 is drawn to a tactile sensor assembly adapted for movement with respect to an object, the tactile sensor assembly including a force transmission member and a sensor comprising a capacitive sensor, wherein the force transmission member includes a plurality of deformable projections for transmitting an applied force to the capacitive sensor, the capacitive sensor being operative to measure a capacitance value formed when the deformable projections are deformed by engagement with the capacitive sensor when a force is applied to the transmission member, and to output a signal indicative thereof (see Section "a" above). All of which are known in the art at the time of the invention.

d. Claim 33 is drawn to a method for detecting tactile properties comprising the limitations providing a tactile sensor assembly comprising a force transmission member and a sensor comprising a capacitive sensor, the force transmission member having a plurality of deformable projections for transmitting an applied force to the capacitive sensor; locating the deformable projections of the force transmission member in contact with the object; moving at least one of the force transmission member relative to the other to compress at least one of the deformable projections, to transmit a force to the sensor; measuring a capacitance value between the compressed deformable projection and the sensor; and outputting a signal from the sensor indicative of the applied force. All of which are known in the art at the time of the invention.

The claimed method is disclosed by Hechtenberg as a method for detecting tactile properties, wherein the force transmission members are attached for forceps for grasping internal tissue (Column 2, Lines 46-64), wherein the deformable projections are movable relative to each other. Eltaib discloses

the method of using a capacitive sensor for detecting tactile properties.

e. Claim 39 drawn to a method of palpating an object the method comprising the steps of: providing a tactile sensor assembly comprising a force transmission member and a sensor comprising a capacitive sensor, the force transmission member having a plurality of deformable projections for transmitting an applied force to the sensor; locating the force transmission member in contact with the object; palpating the object to compress at least one of the projections, to transmit a force to the sensor; measuring a capacitance value between the compressed deformable projection and the sensor; and outputting a signal from the sensor indicative of the applied force (see Section "d" above). All of which are known in the art at the time of the invention.

There is a clear lack of unity of the invention because the common matter of the independent claims is well known and the remaining subject matter of each claim differs from that of the others without there being any unifying novel inventive concept.

3. A telephone call was made to Judith Riley on February 7th 2008 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result**

in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Contact Info

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. STOUT whose telephone number is (571)270-5045. The examiner can normally be reached on M-F 7:30-5:00 Alternate (Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael C Stout/

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Examiner, Art Unit 4123

/Max Hindenburg/

Supervisory Patent Examiner, Art Unit 3736